

*Strongylium pallidonotatum* and its Relatives  
(Coleoptera, Tenebrionidae)

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**Abstract** *Strongylium pallidonotatum* PIC, 1917 and its relatives are dealt with. One known species and four new species are examined: *Strongylium pallidonotatum*, *S. kelantanense* sp. nov., *S. bessiense* sp. nov., *S. sukabumiense* sp. nov., and *S. wolfgangi* sp. nov.

This paper deals with *Strongylium pallidonotatum* PIC, 1917 and its relatives. The major characteristics of this species are the shortened body, several apical segments of antennae widened and flattened, the elytra with a pair of yellowish patches each with a gibbosity near the bases, and also with the apices dehiscent, male anal sternite semicircularly to subelliptically concave, and the male legs often modified.

On this occasion, *S. pallidonotatum* and four new species will be described; they form a species-group. More new relative species will be discovered in the future on the Sunda Land.

*Strongylium pallidonotatum* was originally described by PIC from Nias, but the collecting place handwritten on the type's label is Sumatra.

The specimens examined in the present taxonomic study are submitted to the authors mainly from the collections of the Staatliches Museum für Naturkunde, Stuttgart, the Muséum national d'Histoire naturelle, Paris, and the private collection of Stanislav BEČVÁR, České Budějovice, and also from the authors' collection, which are now deposited in the National Museum of Nature and Science, Tokyo.

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Depositories of the holotypes to be designated are given under each description. The abbreviations used herein are as follows: SMNS – Staatliches Museum für Naturkunde, Stuttgart; NSMT – National Museum of Nature and Science, Tokyo; NMPC – National Museum, Prague, Czech Republic; MNHNP – Muséum national d'Histoire naturelle, Paris.

*Strongylium pallidonotatum* PIC, 1917

(Figs. 1, 9, 20)

*Strongylium pallidonotatum* PIC, 1917, Mél. exot.-ent., Moulins, (23): 19.

*Original description by PIC* (p. 19): “Robustus et curtus, apice valde attenuatus, glaber, nitidus, rufus aut testaceus, capite postice pectoreque piceis, thorace elytrisque viridescentibus, illis antice pallido-testaceo notatis, antennis testaceis, apice nigris et dilatatis; pedibus testaceis, femoribus, tibiis tarsisque apice nigris. Thorace breve, transverso, inæquale, sulcato, densissime punctato; elytris ad basin minute gibbosis et depressis, fortiter striatis, antice foveolatis, intervallis fere carinatis. Long. 11 mill. Ile Nias. — Voisin des deux précédents [*Strongylium medanense* PIC and *S. violaceicolle* PIC, the present authors' insertion], mais gibbosités des élytres moins fortes et coloration toute autre.”

*Notes.* As mentioned in the preface, the major characteristics of this species are the shortened body, several apical segments of antennae widened and flattened (more noticeably modified in female), the elytra with a pair of yellowish patches with gibbosities near the bases, and also with the apices dehiscent, male anal sternite semicircularly to subelliptically concave, and the male legs often modified. As the type specimen of this species is a female, the male characteristics are supplemented from those of its relatives.

The type of *Strongylium pallidonotatum* is preserved in the PIC collection in the Muséum national d'Histoire naturelle, Paris. The collecting place on the label attached to the type is not Nias but Sumatra. Presumably PIC recognized that the type specimen was collected in Nias, even though Sumatra was handwritten on the data label.

Among specimens of the genus *Strongylium* in various collections, the authors found several species which share the diagnostic characters with *S. pallidonotatum*.

*Strongylium kelantanense* sp. nov.

(Figs. 2–3, 10–11, 17, 21, 25, 28, 31, 35)

Brownish yellow, antennae with anterior half of seventh and four apical segments, pronotum with central parts and lateral margins, elytra with anterior 2/5 except for subelliptical patches at basal 1/8, somewhat T-shaped band in posterior 4/9, and also

with apical parts dark brown to brownish black (the coloration is slightly changed darker or lighter in individuals); dorsal surface gently shining, ventral surface weakly so, antennae with anterior half of seventh and four apical segments mat; each surface, except for apical parts of antennae, apical parts of tibiae, and also ventral parts of tarsi, almost glabrous. Body rather short, strongly convex dorsad, rather hunchbacked.

**Male.** Head subdecagonal, gently convex in middle, with a longitudinal groove from interocular part to vertex; clypeus semicircular, gently inclined apicad, rather strongly bent ventrad in apical part, closely, irregularly punctate, with an ill-shaped, somewhat transverse depression in front of fronto-clypeal border; genae gently, obliquely raised laterad, finely punctulate and often rugulose, with outer margins rounded; frons rather widely T-shaped, moderately inclined anteriad, finely punctate, the punctures often fused with one another, diatone (= distance between eyes) 0.4 times the width of an eye diameter; vertex rather closely, irregularly punctate, the punctures often fused with one another and each with a minute decumbent hair; occiput with areas behind eye weakly depressed. Eyes rather large, subreniform in dorsal view, moderately convex laterad, obliquely inlaid into head. Antennae noticeably clubbed and flattened in five apical segments, reaching basal 1/5 of elytra, ratio of the length from basal to apical segments: 0.33, 0.16, 0.76, 0.54, 0.48, 0.43, 0.44, 0.39, 0.37, 0.36, 0.34.

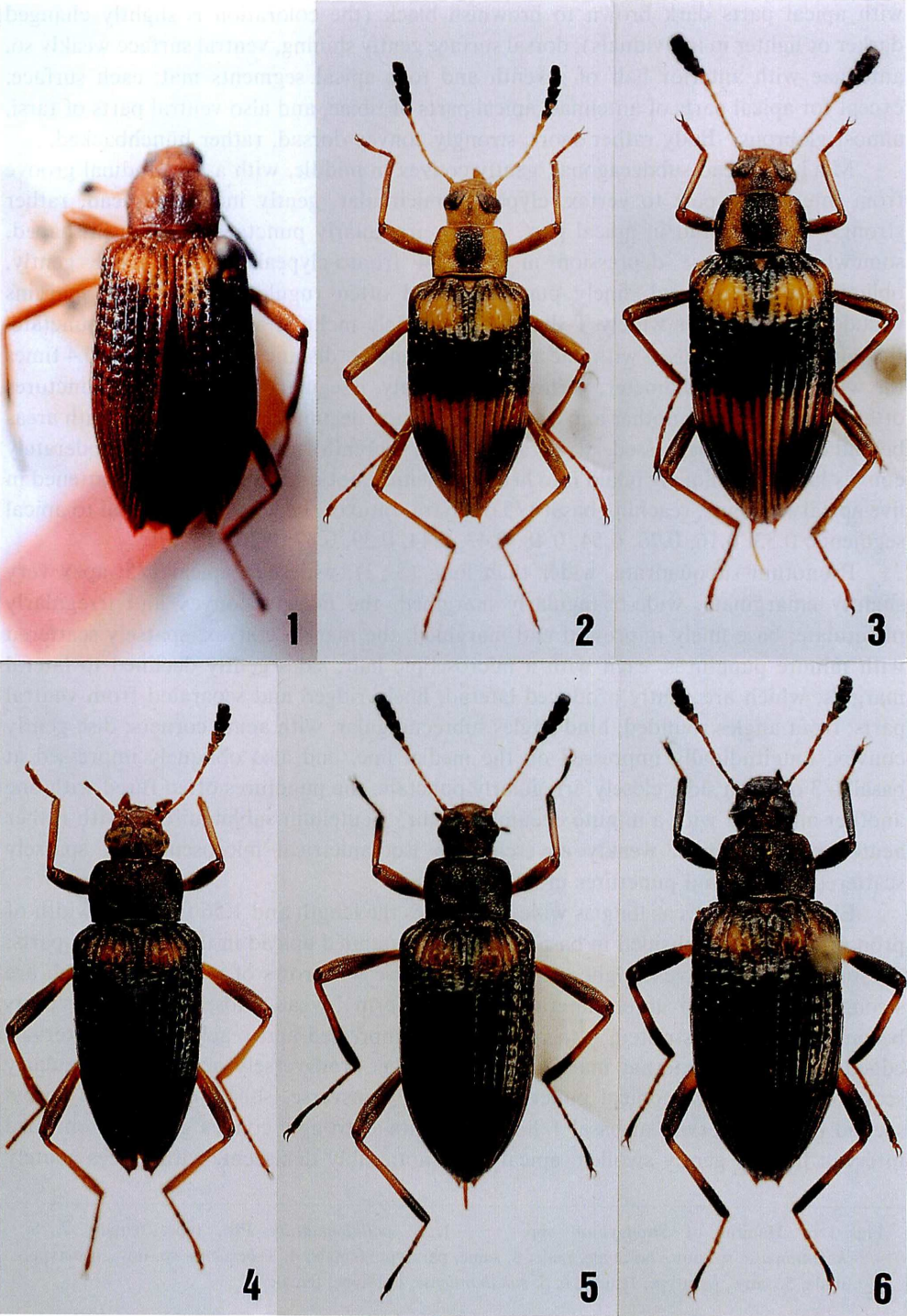
Pronotum subquadrate, wider than long (3 : 2), widest at apical 2/5; apex very slightly emarginate, wide-triangularly margined, the margin convex and irregularly punctulate; base finely impressed and margined, the margin convex, sparsely scattered with minute punctures, each with a microscopic hair; sides gently declined to lateral margins, which are gently produced laterad, finely ridged and separated from ventral parts; front angles rounded, hind angles subrectangular, with acute corners; disc gently convex, longitudinally impressed on the medial line, and also obliquely impressed at basal 1/3 on each side, closely, irregularly punctate, the punctures often fused with one another and each with a minute decumbent hair. Scutellum sublinguiform with rather acute apex, flattened, weakly covered with isodiametrical microsculpture, sparsely scattered with haired punctures in lateral parts.

Elytra 1.91 times as long as wide, 4.19 times the length and 1.56 times the width of pronotum, subparallel-sided in basal 4/9, gently rounded apicad in the remaining parts; dorsum strongly convex, highest at basal 1/4; disc with rows of punctures, which are strong and coarse in antero-lateral parts and form foveae, those in posterior parts becoming finer and striated, fifth row strongly impressed and reaching base; intervals edged along each external margin, weakly, rather transversely aciculate, irregularly scattered with microscopical punctures, with a transverse, subelliptical hump across second to fifth intervals at basal 1/8, which bears a strongly convex gibbosity on third interval; humeri gently swollen; apical parts noticeably dehiscent, with apices acutely

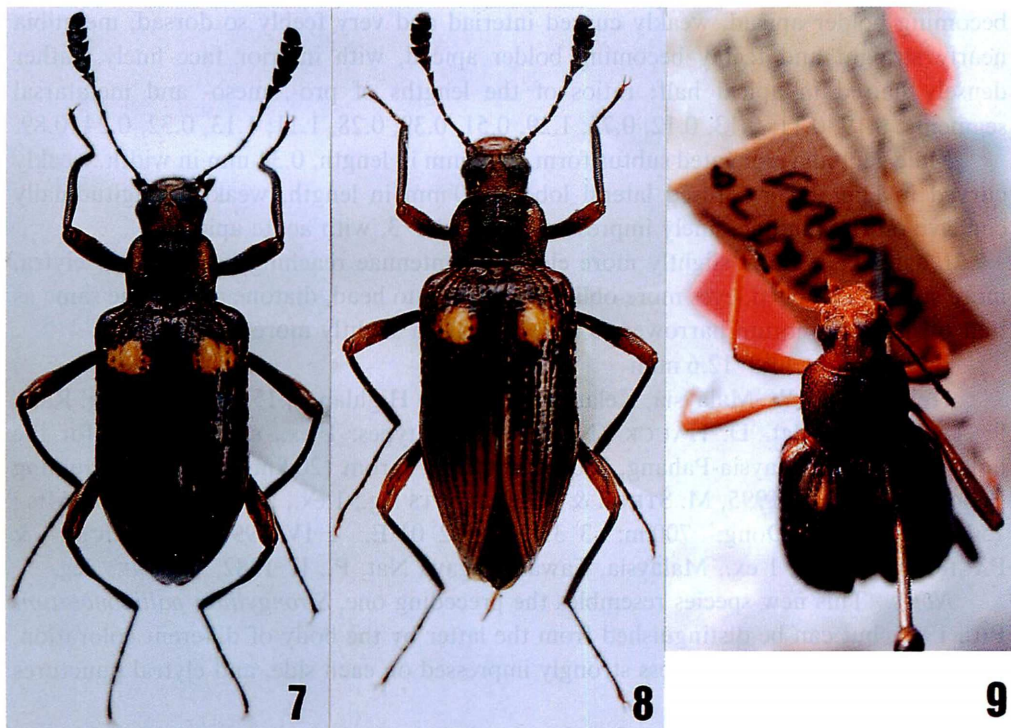
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Figs. 1-6. Habitus of *Strongylium* spp. — 1, *S. pallidonotatum* PIC, type, female; 2, *S. kelantanense* sp. nov., holotype, male; 3, same, paratype, female; 4, *S. bessienae* sp. nov., holotype, male; 5, same, paratype, female; 6, *S. sukabumiense*, holotype, female.









Figs. 7-9. Habitus and anterior body of *Strongylium* spp. — 7, *S. wolfgangi* sp. nov., holotype, male; 8, same, paratype, female; 9, *S. pallidonotatum* Pic, type, female, front aspect.

projected.

Terminal segment of maxillary palpi securiform with curved outer side about 1.58 times the length of the inner, 0.76 times that of apical. Mentum widely obtrapezoidal with anterior part produced, convex in apico-medial part, rather coriaceous and sparsely pubescent in basal part; gula semicircular, almost smooth and sparsely, microscopically punctate, weakly impressed along lateral borders in anterior parts. Prosternum depressed in anterior part, very weakly covered with isodiametrical microsculpture, scattered with microscopical punctures, each with a minute bent hair, intercoxal space and prosternal process raised and rugulose, the latter widely subcordate, depressed on each side, and weakly reflexed along lateral margins. Mesosternum rather short, triangularly depressed and punctate in anterior and medial parts, raised and obliquely impressed in intero-anterior parts, sparsely punctate in areas near mesocoxae. Abdomen weakly covered with isodiametrical microsculpture, rather closely, finely punctate, each puncture very weakly, transversely impressed and with a rather long hair, anal (fifth) sternite with a subelliptical depression in apical 4/5, whose apices are pointed interiad.

Legs rather slender; protibia weakly curved ventrad, with interior face gently gouged at apical 1/3, and finely, rather densely haired in apical 1/4; mesotibiae gently

becoming bolder apicad, weakly curved interiad and very feebly so dorsad; metatibia nearly straight and feebly becoming bolder apicad, with interior face finely, rather densely haired in apical half; ratios of the lengths of pro-, meso- and metatarsal segments: 0.19, 0.11, 0.13, 0.12, 0.75; 1.29, 0.51, 0.39, 0.28, 1.11; 1.13, 0.32, 0.24, 0.89.

Male genitalia elongated subfusiform, 2.49 mm in length, 0.34 mm in width, weakly curved in lateral view; fused lateral lobes 1.10 mm in length, weakly, longitudinally concave on the midline, finely impressed in apical 1/3, with acute apices.

*Female.* Body slightly more elongate, antennae reaching basal 1/7 of elytra, more strongly clubbed, eyes more obliquely inlaid into head, diatone almost the same as that of male, pronotum narrower (9 : 8), and elytra slightly more elongate.

Body length: 11.3–12.6 mm.

*Holotype:* ♂, W. Malaysia, Kelantan, Cameron Highlands, 15 km NE of Kg. Raia, 9~11-IV. 1997, lgt. D. HAUCK (NHMP). *Paratypes:* 1 ex., same data as for the holotype; 1 ex., Malaysia-Pahang, 350–550 m, Lata Jarom (20 km NE Raub), Gunung Benom, 19~22-II-1995, M. ŠTRBA & R. HEROVITS leg.; 1 ex., Malaysia: Benom Mts.; 15 km Kampon Dong; 700 m; 3°35'N, 102°01'E, 1-IV-1998, DEMBICKÝ & PACHOLÁTKO leg.; 1 ex., Malaysia, Tawan Negava Nat. P., II-1982, WEVNEV leg.

*Notes.* This new species resembles the preceding one, *Strongylium pallidonotatum* PIC, 1917, but can be distinguished from the latter by the body of different coloration, the pronotum narrower and less strongly impressed on each side, and elytral punctures in rows stronger and round.

The specific name is given after the place where the holotype was collected.

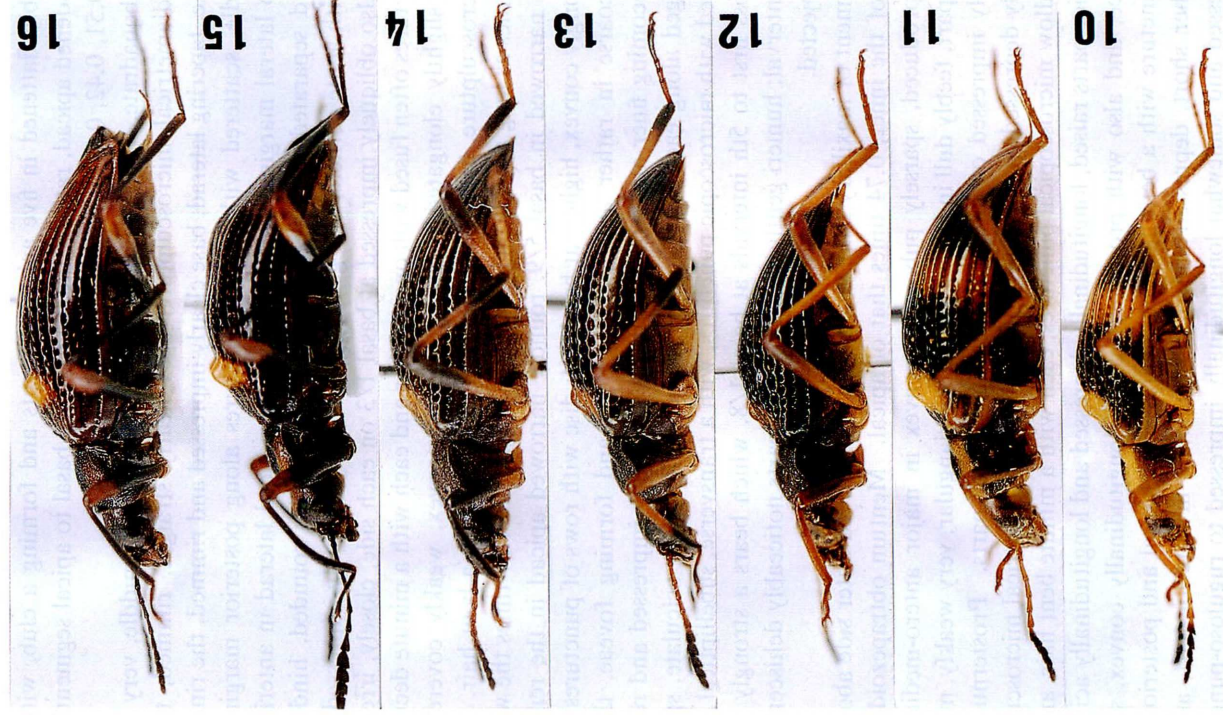
*Strongylium bessiense* sp. nov.

(Figs. 4–5, 12–13, 18, 22, 26, 29, 32, 36)

Brownish yellow, three apical segments of antennae and posterior parts of apical fourth almost black, pronotum reddish brown with lateral parts darkened, scutellum also reddish brown, elytra almost black with feeble greenish tinge in anterior parts, dark brown in posterior parts, and reddish brown in subelliptical patches at basal 1/8, apical parts of femora darkened; head and pronotum weakly shining, scutellum and elytra gently shining, ventral surface weakly so and somewhat alutaceous; each surface almost glabrous, apical parts of antennae, apico-ventral parts of tibiae, and ventral parts of tarsi finely haired. Body rather short, strongly convex dorsad, somewhat hunchbacked.

*Male.* Head transversely subelliptical, deeply, longitudinally impressed from interocular part to vertex; clypeus transversely subelliptical, flattened in basal part, gently inclined in anterior part, closely, irregularly punctate, each puncture with a minute bent hair; fronto-clypeal border grooved, weakly, widely curved posteriad in middle, abruptly bent antero-laterad in lateral parts, and reaching lateral margins; genae rather rhombic and obliquely raised, closely punctulate and often rugulose; frons rather T-shaped, steeply inclined anteriad, finely punctate, ridged along anterior margins of eyes, diatone 1/6 the width of the diameter of an eye; vertex rather closely, irregularly





Figs. 10–16. *Strongylium* spp., in lateral aspects. — 10, *S. kelantanense* sp. nov., holotype, male; 11, same, paratype, female; 12, *S. bessense* sp. nov., holotype, male; 13, same, paratype, female; 14, *S. sukabumtense* sp. nov., holotype, female; 15, *S. wolfgangi* sp. nov., holotype, male; 16, same, paratype, female.

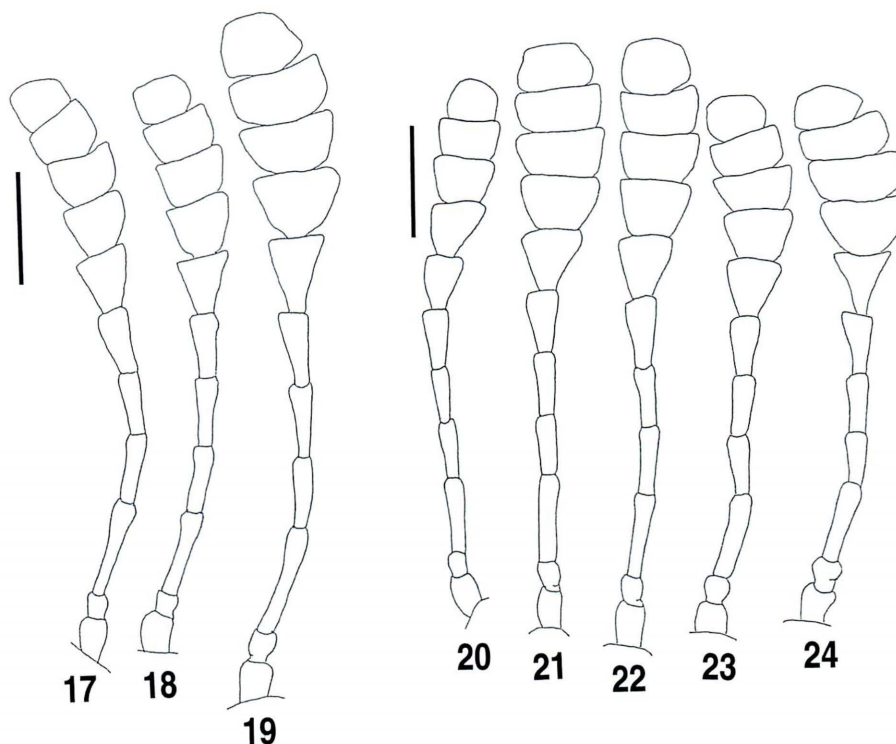
punctate, the punctures often fused with one another and each with a minute decumbent hair; occiput with areas behind eyes strongly depressed. Eyes large, subreniform in dorsal view, strongly convex laterad, obliquely inlaid into head. Antennae reaching basal 1/8 of elytra, noticeably flattened in five apical segments and forming a club, with sixth segment gently widened apicad, ratio of the length from basal to apical segments: 0.33, 0.13, 0.58, 0.49, 0.51, 0.42, 0.39, 0.41, 0.39, 0.38, 0.32.

Pronotum subquadrate, wider than long (3 : 2), widest at the middle, very weakly covered with isodiametrical microsculpture; apex nearly straight, rimmed, the rim sparsely punctulate, tapering laterad; base clearly impressed and rimmed, the rim feebly produced in middle, scattered with minute punctures along posterior margin; sides gently declined to lateral margins, which are gently produced laterad in anterior 3/4, finely rimmed and separated from ventral parts; front angles rounded, hind angles subrectangular, with acute corners; disc gently convex, longitudinally impressed on the medial line, and also obliquely impressed at basal 1/3 on each side, closely, irregularly punctate, the punctures often fused with one another and each with a minute decumbent hair. Scutellum slightly elongated triangular, gently convex, weakly covered with isodiametrical microsculpture, finely punctate, each puncture with a bent hair.

Elytra 1.95 times as long as wide, 3.96 times the length and 1.37 times the width of pronotum, gently narrowed in basal 5/9, roundly narrowed apicad in the remaining parts; dorsum strongly convex, highest at basal 1/4; disc with rows of punctures, which are strong and coarse in rather antero-lateral parts and forming foveae, those in posterior parts becoming finer and striated, 5th rows strongly impressed and reaching base; intervals edged along each outer margin, rather transversely aciculate, sparsely, irregularly scattered with microscopic punctures, with a transverse, subelliptical reddish brown patch across first to 5th intervals at basal 1/8, which bears a strongly convex gibbosity on 3rd interval; humeri gently swollen; apical parts noticeably dehiscent, with apices acutely projected.

Terminal segment of maxillary palpi securiform with curved outer side about 1.36 times the length of the inner, 0.74 times that of apical. Mentum obtapezoidal with anterior margin produced, sparsely pubescent, convex in major antero-medial part, smooth in medial part, feebly dull in lateral parts; gula triangular, very weakly, minutely wrinkled, obliquely impressed on lateral borders in anterior parts. Prosternum with anterior part feebly depressed, very weakly covered with isodiametrical microsculpture, scattered with shallow microscopical punctures, each with a minute bent hair, and with medial and posterior parts raised, longitudinally depressed and longitudinally aciculated in intercoxal space, and also with prosternal process longitudinally convex, sparsely punctate, each puncture with a bent hair, and depressed in lateral and posterior parts. Mesosternum rather short, depressed and rugoso-punctate in anterior part, and also triangularly depressed and somewhat longitudinally impressed to ruguloso-punctate in intercoxal space, convex and wrinkled in areas before interior sides of mesocoxae. Metasternum rather short, shallowly punctate, each puncture with a fine decumbent hair, with a longitudinal groove on the median line. Abdomen weakly covered with





Figs. 17-24. Antennae. — 17-19, male right antenna; 20-24, female right antenna. — 17, 21, *Strongylium kelantanense* sp. nov.; 18, 22, *S. bessense* sp. nov.; 19, 24, *S. wolfgangi* sp. nov.; 20, *S. pallidonotatum* PIC; 23, *S. sukabumiense* sp. nov. Scales = 1 mm.

isodiametrical microsculpture, rather closely, finely punctate, each puncture very weakly, transversely impressed and with a rather long hair, longitudinally wrinkled from first to third sternites, fifth with a semicircular depression in apical 3/4, whose apices are pointed interiad.

Legs rather slender; protibia very weakly curved ventrad, with interior face weakly gouged at apical 1/3, and finely, densely haired in apical 1/4; mesotibia gently becoming bolder apicad and weakly curved intero-ventrad, with interior face weakly gouged at apical 1/3, and finely, densely haired in apical 2/5; metatibia nearly straight and feebly becoming bolder apicad, with interior face finely, rather densely haired in apical half; ratios of the lengths of pro-, meso- and metatarsal segments: 0.16, 0.11, 0.13, 0.13, 0.74; 1.12, 0.44, 0.31, 0.26, 1.04; 0.91, 0.30, 0.23, 0.94.

Male genitalia elongated subfusiform, 2.06 mm in length, 0.58 mm in width, weakly curved in lateral view; fused lateral lobes 1.04 mm in length, depressed in an ovate-shape at basal 1/5, impressed in apical 3/5 on the medial line, with noticeably prolonged apices.

**F e m a l e .** Body more ovate, antennae similar to male in length, reaching basal

1/10 of elytra, with clubs more widened; eyes more obliquely inlaid into head, diatone slightly wider than that of male; pronotum narrower 1.38 times as wide as long, and elytra less strongly narrowed apicad.

Body length: 9.7–12.4 mm.

Holotype: ♂, Est Borneo, Batan bessi, M<sup>c</sup>. M. E. WALSH, 1937, Muséum Paris, 1952, Coll. R. OBERTHÜR (NSMT). Paratypes: 4 exs., same data as for the holotype; 1 ex., Sarawak, 26–III–1990, Kuching Santubong, lgt. A. RIEDEL (NMPC); 1 ex., Borneo Occ., Pontianak, 1906, Coll. R. OBERTHÜR; 1 ex., nr. Kpg. Bunsit, N. Borneo, Sabah, Malaysia, 2–V–1984, M. NISHIKAWA leg.

*Notes.* This new species resembles the preceding one, *Strongylium kelantanense* sp. nov. In comparison of the males, the former species can be distinguished from the latter by the eyes closer to each other, the pronotum wider, the legs less modified, antennal clubs and anal sternite differently shaped, and the dorsal side differently colored. In females, on the other hand, the former can be distinguished from the latter by the eyes larger, the pronotum more quadrate, the elytra with punctures in rows slightly larger and elongate, and gibbosities in anterior part not elongate as in *S. kelantanense* sp. nov.

The specific name is given after the place where the holotype was collected.

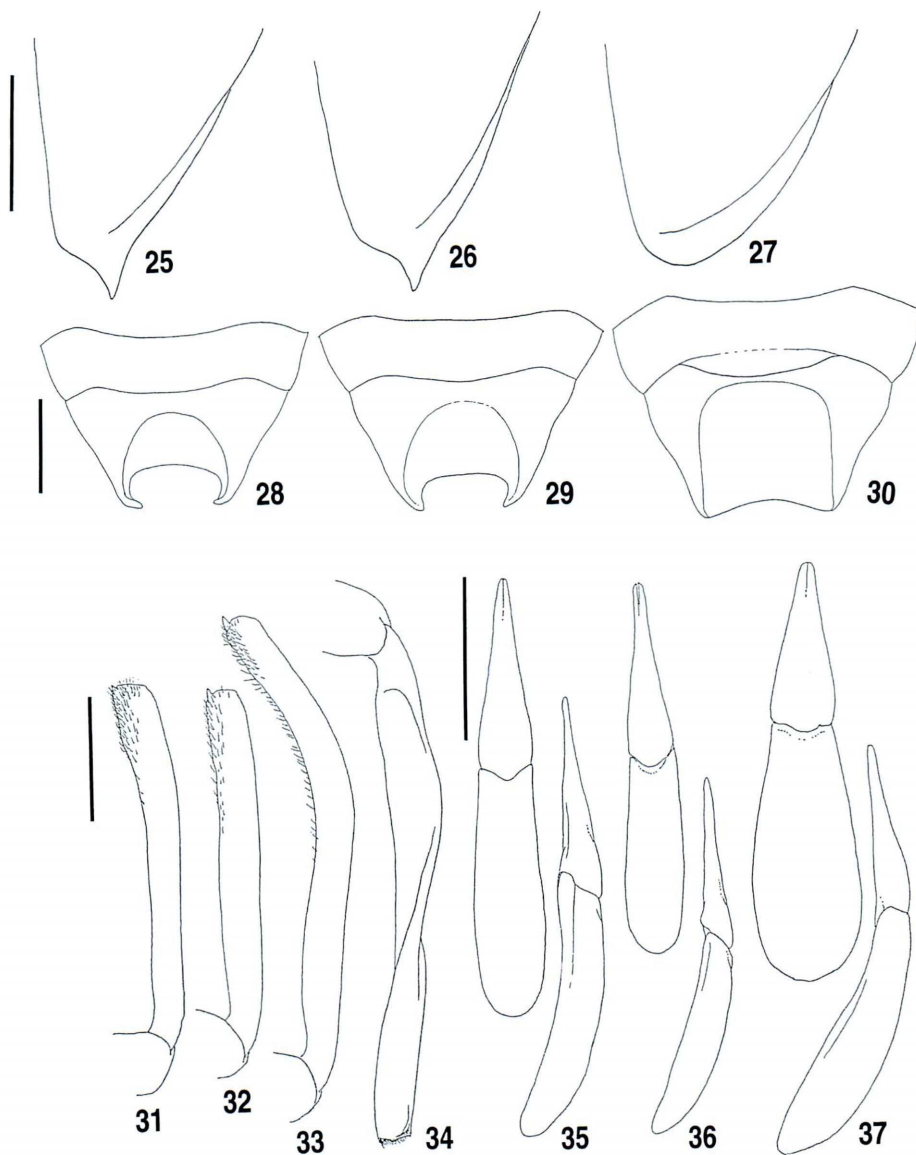
*Strongylium sukabumiense* sp. nov.

(Figs. 6, 14, 23)

Head and pronotum blackish brown, seven apical segments of antennae and scutellum dark reddish brown, elytra brownish black with subelliptical patch yellowish brown, basal parts of femora, basal parts of meso- and metatibiae, tarsi except for apical segments, and claws also yellowish brown, ventral surface almost yellowish brown with lateral parts more or less darkened; head, pronotum and scutellum almost mat, elytra with anterior parts weakly, rather sericeously shining, and major posterior parts gently shining, ventral surface weakly so and rather alutaceous; dorsal surface almost glabrous, apical segments of antennae, tibiae with interior sides of apical parts, ventral sides of tarsi, metasternum and abdomen finely haired. Body rather short, strongly convex dorsad, somewhat hunchbacked.

*F e m a l e.* Head subdecagonal; clypeus transversely hexagonal, flattened in basal part, gently inclined in apical part, coarsely rugoso-punctate; fronto-clypeal border deeply grooved, weakly curved posteriad widely in middle; genae obliquely and rather rhombically raised, closely punctulate, often rugulose in interior parts; frons rather T-shaped, steeply inclined anteriad, coarsely rugoso-punctate, edged along anterior and interior margins of eyes, subrhombically impressed in area from interocular part to vertex, diatone 1/3 the width of the diameter of an eye; vertex hardly convex, coarsely rugose in medial part, rugoso-punctate in lateral part; occiput with areas behind eyes strongly depressed. Eyes large, subreniform in dorsal view, strongly convex laterad, obliquely inlaid into head. Antennae reaching basal 1/6 of elytra, noticeably flattened in five apical segments and forming a club, with sixth segment weakly widened apicad,





Figs. 25-37. Apical parts of elytra, male anal sternites, legs and male genitalia; 25-27, apical parts of elytra; 28-30, fourth and fifth abdominal sternites; 31-33, right protibia; 34, right metatibia; 35-37, male genitalia. — 25, 28, 31, 35, *Strongylium kelantanense* sp. nov., male; 26, 29, 32, 36, *S. bessense* sp. nov., male; 27, 30, 33-34, 37, *S. wolfgangi* sp. nov., male. Scales = 1 mm.

ratio of the length from basal to apical segments: 0.40, 0.17, 0.67 0.41, 0.44, 0.49, 0.44, 0.39, 0.30, 0.29, 0.33.

Pronotum subquadrate, wider than long (6 : 5), widest at apical  $\frac{2}{5}$ , very weakly

covered with isodiametrical microsculpture; apex very weakly emarginate and rimmed, the rim punctulate, tapering laterad; base clearly impressed and rimmed, the rim feebly produced in middle, sparsely scattered with minute punctures in middle, closely, finely punctulate in lateral parts; sides moderately declined to lateral margins, which are gently produced laterad in anterior  $2/3$ , subparallel-sided in the remaining parts, finely rimmed and separated from ventral parts; front angles rounded, hind angles rectangular; disc gently convex, deeply, longitudinally impressed on the medial line, and also gently, obliquely impressed at basal  $1/3$  on each side, closely, coarsely punctate, the punctures often fused with one another and each with a minute decumbent hair. Scutellum sublinguiform, feebly elevated, very slightly concave in posterior part, very weakly covered with isodiametrical microsculpture, irregularly punctate in lateral parts, each puncture with a rather long bent hair.

Elytra 1.70 times as long as wide, 3.80 times the length and 1.60 times the width of pronotum, widest at basal  $4/9$ , weakly narrowed basad, roundly so apicad; dorsum strongly convex, highest at basal  $1/3$ ; disc with rows of strong punctures, which form foveae in antero-lateral parts, those in posterior parts becoming finer and striated, fifth rows strongly impressed and reaching base; intervals weakly covered with isodiametrical microsculpture, sparsely, irregularly scattered with microscopical punctures and often transversely aciculate, raised along each outer margin, with a transverse, subelliptical orange patch across first to fifth intervals at basal  $1/8$ , which bears a strongly convex gibbosity on third interval; humeri gently swollen; apical parts noticeably dehiscent, with apices acutely projected.

Terminal segment of maxillary palpi securiform with curved outer side about 1.58 times the length of the inner, 0.76 times that of apical. Mentum rather obtrapezoidal, with anterior margin produced, convex in major antero-medial part, coriaceous; gula triangular, smooth, obliquely impressed on lateral borders in anterior parts. Prosternum rather alutaceous, rather closely punctate, each puncture with a bent hair, anterior part depressed, medial and posterior parts raised, and prosternal process longitudinally convex with lateral parts depressed and produced laterad. Mesosternum short, triangularly depressed and rugoso-punctate in antero-medial parts, convex and punctate in antero-interior areas of mesocoxae. Metasternum rather short, gently convex on each side, punctate in medial part, each puncture with a fine decumbent hair, granulo-punctate in lateral parts, with a longitudinal groove on the median line. Abdomen rather closely, finely punctate, each puncture with a rather long hair, very weakly, transversely impressed in second to fourth sternites, and longitudinally wrinkled from first to third sternites, fifth with a gently truncate apex.

Legs moderate in size; protibia very weakly curved ventrad, with interior face weakly gouged at apical  $1/3$ , and finely, densely haired in apical  $1/4$ ; mesotibia gently becoming bolder apicad, and weakly curved ventro-interiad, with interior face weakly gouged at apical  $1/3$ , and finely, densely haired in apical  $2/5$ ; metatibia nearly straight and feebly becoming bolder apicad, with interior face finely, rather densely haired in apical half; ratios of the lengths of pro-, meso- and metatarsal segments: 0.17, 0.12, 0.13,



0.13, 0.80; 0.99, 0.34, 0.29, 0.26, 1.06; 0.48, 0.33, 0.24, 1.06.

**Male:** Unknown.

Body length: 13.3 mm.

**Holotype:** ♀, Java occident, Sukabumi, 2000 1893, H. FRUHSTORFER (NSMT).

**Notes.** This new species resembles *Strongylium pallidonotatum* PIC, 1917. In comparison of the females, the former species can be distinguished from the latter by the eyes larger, the pronotum narrower, the scutellum sublinguiform, the elytra with rows of stronger punctures, and the legs bolder.

The specific name is given after the place where the holotype was collected.

*Strongylium wolfgangi* sp. nov.

(Figs. 7–8, 15–16, 19, 24, 27, 30, 33–34, 37)

Piceous, a pair of subelliptical patches in anterior parts of elytra yellow with feeble reddish tinge, major parts of head, lateral parts of pronotum (except for lateral margins), trochanters, apical parts of femora, lateral parts of fourth abdominal sternite and fifth reddish brown, basal and major posterior parts of elytra dark reddish brown, gula pale yellow; head, pronotum, posterior parts of elytra, a pair of elytral gibbosities, gula and femora gently shining, anterior parts of elytra, pro-, meso- and major anterior and lateral parts of metasterna weakly, somewhat sericeously shining, tibiae weakly shining; each surface almost glabrous except for apical parts of antennae, ventro-apical parts of tibiae, and ventral parts of tarsi. Body oblong-ovate, strongly convex dorsad, rather hunchbacked.

**Male.** Head subdecagonal, raised in medial part; clypeus semicircular, nearly flattened in basal part, rather strongly bent ventrad in apical part, closely punctate, each puncture with a decumbent microscopical hair, with a transverse impression in front of fronto-clypeal border, which is widely curved and extended to lateral margins; genae strongly raised laterad, finely punctulate, rugulose in inner parts, with outer margins rounded; frons T-shaped, steeply inclined anteriad, finely rugoso-punctate, diatone 1/7 times the width of an eye diameter; vertex closely punctate, each puncture with a minute bent hair, with a rhombic impression, which is continued with a longitudinal groove posteriad; occiput with areas behind eyes weakly depressed. Eyes large, subreniform in dorsal view, strongly convex laterad, rather obliquely, roundly inlaid into head. Antennae noticeably clubbed and flattened in five apical segments, reaching basal 2/5 of elytra, ratio of the length from basal to apical segments: 0.25, 0.17, 0.91, 0.54, 0.52, 0.50, 0.58, 0.40, 0.39, 0.37, 0.38.

Pronotum quadrate with rounded lateral sides, wider than long (4 : 3), widest at the middle; apex slightly produced, wide-triangularly margined, the margin covered with isodiametrical microsculpture and rather transverse small punctures; base finely impressed and margined, weakly covered with isodiametrical microsculpture and irregularly so with minute punctures; sides gently inclined, separated from ventral parts by ridges, which are easily visible from above; front angles obtusely angulate, hind angles

subrectangular; disc moderately convex, weakly covered with isodiametrical microsculpture, rather closely, irregularly punctate, the punctures often fused with one another in medial part, with a longitudinal impression on the medial line, and a pair of subcrescent impressions at the middle, also with a pair of vague impressions near hind angles. Scutellum sublinguiform, feebly elevated, very weakly depressed in medial part, covered with isodiametrical microsculpture, irregularly scattered with microscopical punctures in lateral parts.

Elytra 1.73 times as long as wide, 4.09 times the length and 1.82 times the width of pronotum, feebly constricted in basal 1/3, widest at apical 2/5; dorsum strongly convex, highest at basal 1/3; disc punctato-striate, the striae punctures ovate to oblong and rather closely set, those in antero-lateral parts rather foveolate, fifth striae strongly impressed and reaching base; intervals rather flat, weakly covered with isodiametrical microsculpture, feebly aciculate, scattered with microscopical punctures, each with a minute decumbent hair, third interval with a gibbosity at basal 1/6; humeri rather noticeably swollen antero-laterad; apical parts dehiscent, with apices gently produced.

Terminal segment of maxillary palpi securiform with curved outer side about 1.43 times the length of the inner, 0.74 times that of apical. Mentum somewhat obtrapezoidal, produced antriad, convex and smooth in apico-medial part, alutaceous and sparsely pubescent in lateral and basal parts; gula somewhat parabolic, very feebly aciculate and sparsely, microscopically punctate, weakly, obliquely bordered by impressions in anterior parts. Prosternum coarsely rugoso-punctate, transversely so in anterior part, longitudinally so in medial and posterior parts (intercoxal space and prosternal process), prosternal process widely triangular, depressed in lateral parts, and with lateral corners and apex rounded. Mesosternum rather short, depressed in intercoxal space, coarsely punctate. Metasternum weakly covered with isodiametrical microsculpture, depressed and rugoso-punctate in antero-medial part, convex, rather smooth and wrinkled in posterior parts, shallowly punctate in lateral parts. First to fourth abdominal sternites finely punctate (the punctures somewhat transverse) and covered with rather long bent hairs, fifth sternite finely punctate, with a rather subelliptical depression in apical 4/5, whose surface is covered with isodiametrical microsculpture, and lateral parts are longitudinally edged.

Mesofemora rather elongate, metafemora shortened; protibia curved ventrad at apical 2/5, with interior face moderately gouged at basal 3/7 and sparsely haired in apical 2/5; mesotibia rather elongate, weakly curved interiad and ventrad, with interior face haired in apical 2/5; male metatibia weakly curved interiad, gouged and twisted at basal 1/3; ratios of the lengths of pro-, meso- and metatarsal segments: 0.25, 0.14, 0.16, 0.15, 0.78; 1.38, 0.50, 0.33, 0.27, 0.89; 1.45, 0.40, 0.28, 1.06.

Male genitalia subfusiform, 2.35 mm in length, 0.48 mm in width, gently curved in lateral view; fused lateral lobes 0.92 mm in length, weakly, longitudinally concave on the midline, slightly prolonged and finely impressed in apical parts.

**Female.** Body more elongate, antennae shorter, reaching base of elytra, with five apical segments more strongly clubbed, eyes less approximate, 1/5 the width of an



eye diameter, and elytra more elongate, 1.87 times as long as wide.

Body length: 11.8–12.9 mm.

Holotype: ♂, Laos-CE, Boli Kham Xai Prov., Ban Nape (8 km NE), 600 m, 18° 21'N, 105° 80'E, 1~18-V-2001, Coll. L. DEMBICKÝ (SMNS). Paratypes: 4 exs., same data as for the holotype.

*Notes.* This new species resembles *Strongylium pallidonotatum* PIC, 1917 and three other new species, but can be distinguished from them by the elytra with the intervals more flattened and smooth, and the apices not acutely produced, and by the male legs distinctly modified.

The specific name is given after Dr. Wolfgang SCHAWALLER, who permitted the authors to loan materials for their studies concerning Asian Strongyliini.

## 要 約

益本仁雄・秋田勝己: *Strongylium pallidonotatum* PIC とその近縁種について。—— *Strongylium pallidonotatum* PIC とその近縁種を取り上げて検討した。この種群の特徴は、ナガキマワリ属としては体格がやや短く、触角の先端数節が平圧されて広がり、翅鞘基部近くに1対の瘤があり、翅端が多少なりとも2叉状である。また、雄の肛門節が半円状~半楕円状に陥没し、さらに雄の肢が発達・変形している種もある。本論文では、既知種の *Strongylium pallidonotatum* PIC と4新種、*S. kelantanense* sp. nov., *S. bessienne* sp. nov., *S. sukabumiense* sp. nov. および *S. wolfgangi* sp. nov. を記載した。なお、一部の種で雄が未発見のため、検索表は次の機会にゆずることとした。

## Postscript

In the authors' previous paper (Elytra, Tokyo, **35**: 529–536), “Two new *Lycidioides* (Coleoptera, Tenebrionidae) from Borneo”, there is an error that should be corrected as follows: In the key to the species of the genus *Lycidioides* in male, antennae with “third segment” (line second and seven in page 536) should be read antennae with “fourth segment”.

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